

**REMARKS**

The Final Office Action mailed December 15, 2000, has been received and reviewed. Claims 1 through 32 are currently pending in the application. Claims 1 through 6 have been allowed. Claims 7 through 32 stand rejected. Claims 14-15, 17-18, 20-21, 23-24, 28, and 32 are canceled by this amendment. Applicant proposes to amend claims 7, 9, 10, 12, 13, 16, 19, 22, 25, 27, and 29, and respectfully requests reconsideration of claims 7 through 32 based upon the proposed amendments and remarks herein.

**35 U.S.C. § 251**

Claims 7 through 32 stand rejected under 35 U.S.C. § 251 as being improperly broadened in a reissue application made and sworn to by the assignee and not the patentee. This same rejection was made in the Official Action dated May 1, 2000 (paper 18). Applicant respectfully traverses this rejection, as hereinafter set forth.

The rejection is unfounded because the patentee, not the assignee, has made and sworn to both the original Reissue Declaration and the Supplemental Reissue Declaration, copies of each of which documents are included herewith. Applicant filed the original Reissue Declaration with the Office on December 6, 1996. The original Reissue Declaration was made and sworn to by the patentee, Steve W. Heppler. A Supplemental Reissue Declaration, also made and sworn to by the patentee, was submitted to the Office on or about June 6, 2000. The rejection is based upon the allegation that the assignee, and not the patentee, made and swore to the Reissue Declaration and Supplemental Reissue Declaration. *See*, MPEP §§ 706.03(x), 1412.03. This is not the case. A copy of the original Reissue Declaration and the Supplemental Reissue Declaration are included herewith. Applicant respectfully requests that the rejection be withdrawn and the claims allowed.

**35 U.S.C. § 251 Improper Recapture Rejection**

Applicant notes that the improper recapture rejection of claims 7 through 32 is a new ground for rejection which was not heretofore applied in this case. Applicant therefore

respectfully requests that the finality of the rejection be withdrawn as premature pursuant to MPEP § 706.07(c).

Claims 7 through 32 stand rejected under 35 U.S.C. § 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. Applicant respectfully traverses this rejection, as hereinafter set forth.

*In re Clement* 45 U.S.P.Q.2d 1161, 1164 (Fed. Cir. 1997) recites the defining set of principles concerning the recapture rule:

(1) if the reissue claim is as broad as or broader than the canceled or amended claim in all aspects, the recapture rule bars the claim; (2) if it is narrower in all aspects, the recapture rule does not apply, but other rejections are possible; (3) if the reissue claim is broader in some aspects, but narrower in others, then: (a) if the reissue claim is as broad as or broader in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim; (b) if the reissue claim is narrower in an aspect germane to a prior art rejection, and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim, but other rejections are possible. *See, In re Clement*, 45 U.S.P.Q.2d at 1165, *see also* MPEP § 1412.02.

In any case, a recapture rejection is only applicable if the reissue claims are broader in an aspect of the claims relevant to the prior art rejections.

Although the Official Action fails to define the broadening aspects of the reissue claims which apparently constitute the improper recapture of subject matter surrendered in the application, Applicant has attempted to make the necessary amendments to overcome the recapture rejections.

Claims 7, 10, 25, and 29 (and presumably dependent claims 8-9, 11-12, 26, and 30) are rejected for failing to include the allowable subject matters “a first track...” and “a second track...” as cited in independent claim 1 of United States Patent No. 5,348,164 (hereinafter “‘164 Patent”). Applicant respectfully traverses this rejection because independent claims 7 and 10 are narrower with respect to the “first track...” and the “second track...” language, and because the proposed amendments to claims 25 and 29 incorporate the allowable subject matter.

Applicant asserts that amended independent claim 7 includes a narrower recitation of the allowable subject matter of claim 1 of the ‘164 Patent which the Official Action alleges is lacking. Because amended claim 7 is narrower with respect to the allowable subject matter, it

falls within principle 3(b) of the recapture principles defined in *In re Clement*, and the recapture rule does not bar the claim. Amended independent claim 7 specifically recites “a separating apparatus... including a defective integrated circuit track for receiving defective integrated circuits and a non-defective integrated circuit track for receiving non-defective integrated circuits.” The alleged lacking subject matter is “a first track...” and “a second track....” However, the recitation of “a defective integrated circuit track...” more narrowly claims the alleged missing “a first track....” Similarly, the recitation of “a non-defective integrated circuit track...” is a narrower claim of “a second track....” The claim language of claim 7 is narrower than that of claim 1 of the ‘164 Patent because the track is defined for a specific type of integrated circuit.

Furthermore, both the “defective integrated circuit track” and the “non-defective integrated circuit track” are claimed as part of “a separating apparatus” which is an additional limitation not claimed in claim 1 of the ‘164 Patent. The scope, therefore, of the subject matter of claim 7 relating to “a first track...” and “a second track...” is narrower than that of claim 1 of the ‘164 Patent because the tracks are part of an additional element not claimed by claim 1 of the ‘164 Patent. *In re Clement* specifically indicates that “if the reissue claim is narrower in an aspect germane to a prior art rejection,” (which claim 7 is) “and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim, but other rejections are possible.” See, *In re Clement*, 45 U.S.P.Q.2d at 1165 (*emphasis added*). Because claim 7 is narrower in the aspects germane to “a first track...” and “a second track...,” the recapture rule does not bar the claim. Therefore, Applicant respectfully requests the allowance of claim 7 as amended, and claims 8 and 9 which depend therefrom.

Similarly, amended claim 10 is narrower in the aspects germane to “a first track...” and “a second track....” Like claim 7, claim 10 recites “a separating apparatus...including a defective integrated circuit track for receiving defective integrated circuits and a non-defective integrated circuit track for receiving non-defective integrated circuits.” Claim 10 is not subject to the recapture rule for the same reasons that claim 7 is not subject to the recapture rule. Therefore,

amended claim 10 should be allowed over the stated rejection, along with claims 11 and 12 which depend therefrom.

Proposed amendments to claims 25 and 29 add the following language to each of the claims:

a first track for receiving tested integrated circuits having the first test condition from said separating apparatus when said separating apparatus is at said first position; and  
a second track for receiving tested integrated circuits having the second test condition from said separating apparatus when said separating apparatus is at said second position

These proposed amendments incorporate the allowable subject matter of "a first track..." and "a second track..." of claim 1 of the '164 Patent into claims 25 and 29, and thereby remedy any improper recapture. Because claims 25 and 29 have been amended to include the allowable subject matter of claim 1 of the '164 Patent, Applicant requests that the amendments be entered, the rejection be withdrawn, claims 25 and 29 be allowed, and claims 26 and 30 which depend respectively therefrom also be allowed.

Claims 13, 16, 19, 22, 27, and 31 have also been rejected as being an improper recapture of surrendered material because they do not include the allowable step limitations (e), (f), (g), (h) and (i) as listed in claim 3 of the '164 Patent.<sup>1</sup> Applicant respectfully traverses the rejection as hereinafter set forth.

Each of claims 13, 16, 19, 22, 27, and 31 are amended herein to include the subject matter of the allowable step limitations (e), (f), (g), (h), and (i) as listed in claim 3 of the '164 Patent and are therefore allowable over the 35 U.S.C. § 251 recapture rejection.

Specifically, claim 13 has been amended to include the limitations of claims 14 and 15 and incorporate the subject matter of the step limitations in claim 3 of the '164 Patent. Furthermore, claim 13 is allowable because the identity of the test conditions as "defective and non-defective conditions" is narrower than the test conditions recited in the '164 Patent.

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<sup>1</sup> Before renumbering, claim 3 was claim 8 in the original patent application for the '164 Patent. For the purposes of this Amendment, Applicant's reference to claim 3 means and includes a reference to claim 8 in the original patent application.

Similarly, claim 13 more narrowly claims the “a first track” and “a second track,” claiming a “non-defective integrated circuit track” and a “defective integrated circuit track.” Because the recapture rule does not bar reissue claims which are narrower in an aspect germane to a prior art rejection, claim 13 is not barred. *See, In re Clement*, 45 U.S.P.Q.2d at 1165. Therefore, amended claim 13 should be allowed.

Claims 16, 19, and 22 are also allowable over the recapture rejection for the same reasons recited with respect to claim 13. Applicant respectfully requests their allowance.

The limitations of claim 28 are incorporated into amended claim 27 herein. As such, amended claim 27 includes subject matter relating to each of the allowable steps (e) through (i) enumerated in claim 3 of the ‘164 Patent. A recapture rejection of amended claim 27 is therefore improper, and Applicant requests the allowance of amended claim 27.

Similarly, the limitations of claim 32 are incorporated into amended claim 31 herein. As such, amended claim 31 includes subject matter relating to each of the allowable steps (e) through (i) enumerated in claim 3 of the ‘164 Patent. A recapture rejection of amended claim 31 is therefore improper, and Applicant requests the allowance of amended claim 31.

#### **ENTRY OF AMENDMENTS**

The proposed amendments to claims 7, 9, 10, 12, 13, 16, 19, 22, 25, 27, and 29 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

### CONCLUSION

Claims 1 through 6 have been allowed and claims 7 through 32 are believed to be in condition for allowance. An early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully Submitted,



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Date: April 16, 2001

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**APPENDIX A - Claim Amendments**

1. An integrated circuit testing apparatus for testing an integrated circuit leaving an IC singulation station, comprising:

- a) a receiving means positioned in a pre test position for receiving the integrated circuit from the IC singulation station;
- b) a testing site, positioned to secure the integrated circuit after a displacement of said receiving means to a test position, the displacement positioning said integrated circuit in said testing site said test site having a test connection for making physical contact with said integrated circuit when it is secured in said testing site, a circuit test performed on said integrated circuit when it is secured in said testing site; and
- c) a holding station having a first post test position and a second post test position, said holding station receiving the integrated circuit in said first post test position from the receiving means following a return of the receiving means to said pre test position subsequent to the performing of the circuit test the integrated circuit;
- d) a first track for receiving the integrated circuit from the holding station when the holding station is in said first post test position and when the circuit test determines that the integrated circuit has a first test condition; and
- e) a second track for receiving the integrated circuit from the holding station when the holding station is in said second post test position, said second test position attained when said receiving means returns to said test position, said second track receiving the integrated circuit when the circuit test determines that the integrated circuit has a second test condition.

2. The apparatus of claim 1, wherein the holding station further comprises:  
a control pin for retaining the integrated circuit in the first post test position, when the integrated circuit has said second test condition, and for releasing the integrated circuit from the first post test position to said first track when said integrated circuit has said first test condition, and for releasing said integrated circuit from said second post test position to said second track when said integrated circuit has said second test condition.
3. A method for testing an integrated circuit in a testing apparatus after a departure of the integrated circuit from an integrated circuit singulation apparatus comprising the steps of:
  - a) moving the testing apparatus to a loading position;
  - b) loading the integrated circuit into the testing apparatus;
  - c) moving the testing apparatus to a test position to position the integrated circuit for testing;
  - d) performing electrical tests on the integrated circuit to provide a tested integrated circuit having identified first and second test conditions;
  - e) moving the testing apparatus from the test position to position the tested integrated circuit for unloading;
  - f) moving the tested integrated circuit to a first unloading position;
  - g) unloading the tested integrated circuit from the first unloading position to a first track when it has said first test condition;
  - h) moving the tested integrated circuit to a second unloading position when it has said second test condition; and
  - i) unloading the tested integrated circuit from the second unloading position to a second track when it has said second test condition.
4. The method as specified in claim 3, further comprising moving said testing apparatus to said test position during said step of moving the tested integrated circuit to said second unloading position.

5. (Amended) A testing apparatus for controlling positioning of a circuit before, during and after a circuit test is performed on the circuit, the circuit test determining a first and a second test condition of the circuit, the apparatus comprising:

- a) a positioning apparatus having a first port and a second port and a first position and a second position, said first port receiving the circuit for testing;
- b) a testing apparatus for securing said circuit during a testing of the circuit, said positioning apparatus displaced to said second position during testing;
- c) a testing control pin for retaining said circuit in said first port prior to the testing and for allowing a transfer of said circuit from said first port to said second port subsequent to the testing;
- d) a first track for receiving said circuit from said second port when said circuit test finds said circuit to have the first test condition, said positioning apparatus being in said first position; and
- e) a second track for receiving said circuit from said second port when said circuit test finds said circuit to have the second test condition, said positioning apparatus being in said second position.

6. The apparatus as specified in claim 5, further comprising an unloading control pin for retaining said circuit in said second port when said circuit test finds said circuit to have said second test condition and said testing apparatus is in said first position and for allowing a release of said circuit to said first track when said circuit test finds said circuit to have said first test condition and for allowing a release of said circuit to said second track when said circuit test finds said circuit to have said second test condition.

7. (Amended) An integrated circuit testing apparatus for testing an integrated circuit leaving an integrated circuit singulation station, comprising:  
a receiving apparatus positioned to receive untested integrated circuits from the integrated circuit singulation station;  
a testing apparatus positioned to receive the untested integrated circuits from the receiving apparatus and test the integrated circuits to identify defective integrated circuits and non-defective integrated circuits, said testing apparatus including a holding station, a first position, and a second position, said testing apparatus while in said first position allowing tested integrated circuits to proceed to said holding station and allowing untested integrated circuits to be received from said receiving apparatus; and  
a separating apparatus connected to the testing apparatus to separate defective integrated circuits from non-defective integrated circuits after testing thereof, said separating apparatus including a defective integrated circuit track for [the] receiving defective integrated circuits and a non-defective integrated circuit track for [the] receiving non-defective integrated circuits.

8. The apparatus of claim 7, wherein said testing apparatus while in said second position will electrically test the integrated circuit.

9. (Amended) The apparatus of claim 8, further comprising:  
the holding station while in the first position holding defective integrated circuits from proceeding to the separating apparatus, and [allow] allowing non-defective integrated circuits to proceed to the non-defective integrated circuit track of the separating apparatus; and  
the holding station while in the second position releasing defective integrated circuits to the defective integrated circuit track of the separating apparatus.

10. (Amended) An integrated circuit testing apparatus for testing an integrated circuit leaving an integrated circuit singulation station, comprising:  
a loading apparatus for supplying the integrated circuit leaving the integrated circuit singulation station to the integrated circuit testing apparatus;  
a receiving apparatus positioned to receive untested integrated circuits from the integrated circuit singulation station;  
a testing apparatus positioned to receive the untested integrated circuits from the receiving apparatus and test the integrated circuits to identify defective integrated circuits and non-defective integrated circuits, said testing apparatus including a holding station, a first position, and a second position, said testing apparatus while in said first position allowing tested integrated circuits to proceed to said holding station and allowing untested integrated circuits to be received from said receiving apparatus; and  
a separating apparatus connected to the testing apparatus to separate defective integrated circuits from non-defective integrated circuits after testing thereof, said separating apparatus including a defective integrated circuit track for [the] receiving defective integrated circuits and a non-defective integrated circuit track for [the] receiving non-defective integrated circuits.

11. The apparatus of claim 10, wherein said testing apparatus while in said second position will electrically test the integrated circuit.

12. (Amended) The apparatus of claim 11, further comprising:  
the holding station while in the first position holding defective integrated circuits from proceeding to the separating apparatus, and [allow] allowing non-defective integrated circuits to proceed to the non-defective integrated circuit track of the separating apparatus; and  
the holding station while in the second position releasing defective integrated circuits to the defective integrated circuit track of the separating apparatus.

13. (Amended) A method of testing an integrated circuit in a testing apparatus having a test site, a holding station, a non-defective integrated circuit track, a defective integrated circuit track, a first position, and a second position, after the singulation of the integrated circuit in an integrated circuit singulation apparatus, said method comprising the steps of:

transferring the integrated circuit from the integrated circuit singulation apparatus;

receiving the integrated circuit at the testing apparatus while the testing apparatus is in the first position;

moving the testing apparatus to the second position;

testing the integrated circuit to identify defective and non-defective conditions of the integrated circuit;

moving the testing apparatus to the first position to allow the tested integrated circuit to proceed to the holding station in a first unloading position while receiving a second singulated integrated circuit into the testing apparatus; [and]

allowing non-defective integrated circuits to proceed to the non-defective integrated circuit track from said first unloading position; and

moving the holding station to a second unloading position and allowing defective integrated circuits to proceed to the defective integrated circuit track.

[separating the defective and non-defective integrated circuits.]

14. (Canceled)

15. (Canceled)

16. (Amended) A method of testing an integrated circuit after the singulation thereof using a testing apparatus having a test site, a holding station, a non-defective integrated circuit track, a defective integrated circuit track, a first position, and a second position, said method comprising the steps of:

transferring the integrated circuit from the integrated circuit singulation apparatus;

receiving the integrated circuit at the testing apparatus while the testing apparatus is in the first position;

moving the testing apparatus to the second position;

testing the integrated circuit thereby identifying defective and non-defective conditions thereof;

moving the testing apparatus to the first position after testing of the integrated circuit;

allowing the tested integrated circuit to proceed to the holding station in a first unloading position;

receiving a second singulated integrated circuit into the testing apparatus while in the first position; [and]

unloading non-defective integrated circuits to the non-defective integrated circuit track from said first unloading position; and

moving the holding station to a second unloading position and unloading defective integrated circuits to the defective integrated circuit track.

[separating the defective and non-defective integrated circuits.]

17. (Canceled)

18. (Canceled)

19. (Amended) A method of testing an integrated circuit in a testing apparatus having a test site, a holding station, a non-defective integrated circuit track, a defective integrated circuit track, a first position, and a second position, after the singulation of the integrated circuit in an integrated circuit singulation apparatus, said method comprising the steps of:

receiving the integrated circuit at the testing apparatus while the testing apparatus is in the first position;

moving the testing apparatus to the second position;

testing the integrated circuit to identify defective and non-defective conditions of the integrated circuit;

moving the testing apparatus to the first position to allow the tested integrated circuit to proceed to the holding station in a first unloading position while receiving a second singulated integrated circuit into the testing apparatus; [and]

allowing non-defective integrated circuits to proceed to the non-defective integrated circuit track from said first unloading position; and

moving the holding station to a second unloading position and allowing defective integrated circuits to proceed to the defective integrated circuit track.

[separating the defective and non-defective integrated circuits.]

20. (Canceled)

21. (Canceled)

22. (Amended) A method of testing an integrated circuit after the singulation thereof using a testing apparatus having a test site, a holding station, a non-defective integrated circuit track, a defective integrated circuit track, a first position, and a second position, said method comprising the steps of:

receiving the integrated circuit at the testing apparatus while the testing apparatus is in the first position;

moving the testing apparatus to the second position;

testing the integrated circuit thereby identifying defective and non-defective conditions thereof;

moving the testing apparatus to the first position after testing of the integrated circuit;

allowing the tested integrated circuit to proceed to the holding station in a first unloading position;

receiving a second singulated integrated circuit into the testing apparatus while in the first position; [and]

unloading non-defective integrated circuits to the non-defective integrated circuit track from said first unloading position; and

moving the holding station to a second unloading position and unloading defective integrated circuits to the defective integrated circuit track.

[separating the defective and non-defective integrated circuits.]

23. (Canceled)

24. (Canceled)

25. (Amended) An apparatus for testing singulated integrated circuits, comprising:  
a testing apparatus movable between a first position and a second position receiving untested  
integrated circuits while in said first position and identifying first and second test  
conditions of an integrated circuit while in said second position; [and]  
a separating apparatus coupled to and movable between the first position and the second position,  
receiving tested integrated circuits from said testing apparatus while in said first position  
and releasing tested integrated circuits having the first test condition while at said first  
position and releasing tested integrated circuits having the second test condition while at  
said second position[.] ;  
a first track for receiving tested integrated circuits having the first test condition from said  
separating apparatus when said separating apparatus is at said first position; and  
a second track for receiving tested integrated circuits having the second test condition from said  
separating apparatus when said separating apparatus is at said second position.

26. The apparatus of claim 25, wherein said testing apparatus and said separating  
apparatus include at least one integral member moveable between said first position and said  
second position.

27. (Amended) A method of testing singulated integrated circuits in a testing apparatus having a first position, a second position, a first integrated circuit track, a second integrated circuit track, and a holding station, comprising:

receiving an untested, singulated integrated circuit into the testing apparatus while in the first position;

moving the untested, singulated integrated circuit to the second position;

testing the untested, singulated integrated circuit to determine first and second test conditions thereof;

moving the tested, singulated integrated circuit back to the first position;

allowing the tested, singulated integrated circuit to move to the holding station in the first position;

receiving another untested, singulated integrated circuit into the testing apparatus while in the first position; [and]

releasing tested, singulated integrated circuits having the first test condition to said first integrated circuit track while the holding station is in the first position; and

releasing tested, singulated integrated circuits having the second test condition to said second integrated circuit track while the holding station is in the second position.

[separating the tested, singulated integrated circuits having the first test condition from integrated circuits having the second test condition.]

28. (Canceled)

29. (Amended) An apparatus for testing singulated integrated circuits, comprising:  
a loading apparatus for supplying the integrated circuit leaving the integrated circuit singulation  
station to the integrated circuit testing apparatus;  
a testing apparatus movable between a first position and a second position receiving untested  
integrated circuits while in said first position and identifying first and second test  
conditions of an integrated circuit while in said second position; and  
a separating apparatus coupled to and movable between the first position and the second position,  
receiving tested integrated circuits from said testing apparatus while in said first position  
and releasing tested integrated circuits having the first test condition while at said first  
position and releasing tested integrated circuits having the second test condition while at  
said second position[.];  
a first track for receiving tested integrated circuits having the first test condition from said  
separating apparatus when said separating apparatus is at said first position; and  
a second track for receiving tested integrated circuits having the second test condition from said  
separating apparatus when said separating apparatus is at said second position.

30. The apparatus of claim 29, wherein said testing apparatus and said separating  
apparatus include at least one integral member moveable between said first position and said  
second position.

31. (Amended) A method of testing singulated integrated circuits in a testing apparatus having a first position, a second position, a first integrated circuit track, a second integrated circuit track, and a holding station, comprising:  
transferring the integrated circuit from the integrated circuit singulation apparatus;  
receiving an untested, singulated integrated circuit into the testing apparatus while in the first position;  
moving the untested, singulated integrated circuit to the second position;  
testing the untested, singulated integrated circuit to determine first and second test conditions thereof;  
moving the tested, singulated integrated circuit back to the first position;  
allowing the tested, singulated integrated circuit to move to the holding station in the first position;  
receiving another untested, singulated integrated circuit into the testing apparatus while in the first position; [and]  
releasing tested, singulated integrated circuits having the first test condition to said first integrated circuit track while the holding station is in the first position; and  
releasing tested, singulated integrated circuits having the second test condition to said second integrated circuit track while the holding station is in the second position.  
[separating the tested, singulated integrated circuits having the first test condition from integrated circuits having the second test condition.]

32. (Canceled)